

THE SILVER INSTITUTE LETTER

WORLDWIDE INFORMATION ON SILVER

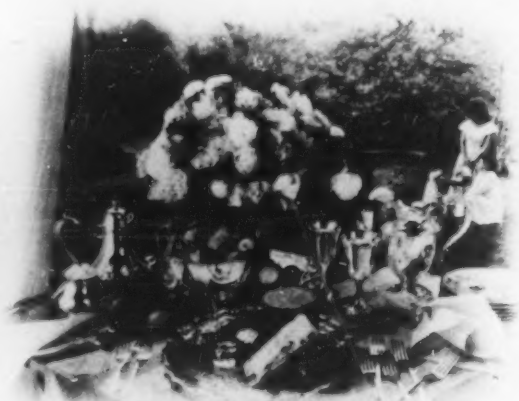
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SILVER TABLEWARE AND GIFTWARE PROMOTION LAUNCHED

There is a growing consumer interest in silver tableware and giftware. As a result, the Silver Institute, in cooperation with the Sterling Silversmiths Guild, has launched a cooperative advertising campaign and educational program.

Sterling Silver
The Eternal Element of the 21st Century



Silver Trust International and the six companies that form the Sterling Silversmiths Guild have launched their first cooperative advertising campaign and educational program. The six Guild companies are: Gorham, Kirk-Steiff, Lunt Silversmiths, Reed & Barton Silversmiths, Towle Silversmiths and Wallace-International Silversmiths.

A cooperative national consumer advertising campaign and education program to increase consumer understanding, interest and desire for sterling silver tableware and giftware was recently announced by Silver Trust International and the Sterling Silversmiths Guild of America.

Silver will be promoted as the only precious metal that is a truly affordable luxury. This promotional effort—from October through December—calls for an extensive advertising schedule in upscale shelter and lifestyle publications and will be targeted toward women aged 25 to 54, who attended or graduated from college, and have household incomes of \$50,000 or more.

"Of primary importance to the silver tabletop industry is building consumer awareness of sterling silver products. The Guild chose to participate in this campaign as a significant step towards achieving this crucial goal," according to Tony LaChapelle, spokesperson for the Guild.

"With at-home entertaining on the rise, a resurgence toward traditional values and a strong desire for discriminating, quality gifts, we feel this is an opportune time to go after the affluent hostess market," explained Linda Meehan, Director of Silver Trust International.

Ms. Meehan added, "The home is becoming much more of a status symbol, an expression of identity for today's achievers. We want consumers to realize that you don't have to wait for a special occasion or holiday to use sterling silver."

The cooperative advertising campaign will be supported by a fully integrated multi-media public relations program, including a video news release on at-home dining and entertaining. A retail education program is also planned. A new sales training film will be available this fall to retailers free of charge. For further information, retailers should call the Silversmiths Guild office at (301) 532-7062.

59 MILLION TROY OUNCES OF SILVER USED FOR X-RAY FILM IN 1988

In 1988, 40% of all silver used in photography—59 million ounces—was used for X-ray film. Increased worldwide concern for human health is expected to lead to at least a 4% annual increase in the use of X-ray film, amounting to 71 million ounces in 1993, according to a study for The Silver Institute by Peter Krause, Vice President, Imaging Technology/Markets Inc.

One of the fastest growing uses of X-rays is for mammograms because, "breast cancer mortality can be reduced by 30% if women over 50 have regular mammograms," said the retired Director of the National Cancer Institute, Dr. Vincent T. DeVita.

Another reason for increased use of X-ray diagnostic techniques is because they are much safer than before. Dr. Stephen A. Feig, Jefferson University Hospital in Philadelphia, calculated that the risk associated with mammogram study may be equated with that of smoking one-fourth of one cigarette. This is because the use of newly developed high-speed silver halide X-ray film, has reduced the time a patient is exposed to high-energy radiation by half, said James E. Blamphin, Communications and Public Affairs Officer, Eastman Kodak, Inc.

Although electronic imaging produces a much lower image quality and is many times more expensive than X-ray diagnostics, the two techniques can be blended to the patient's benefit. For example, soon after the imaging CAT scanner was first used medically in 1973, a multi-image photographic camera was developed to provide physicians with a permanent record of up to 12 CAT scan images on a single sheet of film. As a result, CAT scans have increased the use of silver halide film according to Mr. Blamphin.

MAJOR INCREASE IN DEMAND FOR SILVER COINS

Although the media focuses public attention on silver bullion coins such as the American Eagle and the Canadian Maple Leaf, there is a **strong, widespread demand for numismatic coins by the world's coin collectors**. This is clearly indicated in The Silver Institute's unique *Modern Silver Coinage 1988* which reveals that of the 25.7 million troy ounces of silver used in the minting of 329 coinages by 81 nations, numismatic coins consumed 17.8 million ounces of silver while silver bullion coins accounted for 7.9 million ounces.



Two of the most popular numismatic coins issued in 1988 are shown at left. They are the Federal Republic of Germany's 10 Deutsche Mark coin bearing a portrait of a pioneer of the photographic industry, Carl Zeiss, and France's 100 Francs coin featuring an allegorical profile of a female head wearing a crown of cherubs. Over 4.7 million troy ounces of silver were used in the minting of 8.4 million of the German commemorative coins and 4.9 million of the French coin.

The past decade has witnessed a strong upward trend in the global demand for silver coins. This is evidenced by the fact that during the first five year period, average annual consumption of silver for coinage was 12.9 million troy ounces. **This figure increased by 69% to an annual average of 21.8 million during the second five year period.** And, during 1988, demand for silver used in coinages reached 25.7 million ounces—which is well above the 17.3 million ounce average for the entire ten years.

Top ten users of silver in coinage. In 1988, the biggest user of silver in coinage was the United States (9.2 million troy ounces), followed by the Federal Republic of Germany (5.2), France (2.2), Canada (2.0), Mexico (1.3), Korea (1.1), The Netherlands (.7), Austria (.6), Poland (.5), Isle of Man (.5) and All Other Countries (2.4) according to *Modern Silver Coinage 1988*.

The 71-page book is the *only* reference publication that provides coin collectors, researchers and investors with a description of every silver coin issued in the world in 1988, including its design, diameter, weight in grams, percent of silver used in each coin, troy ounces of silver in each coin, as well as the number of coins and troy ounces of silver used in each issue.

PRESENT PERFECT: STERLING SILVER GIFTS FOR THE HOLIDAY HOSTESS

BY Diana Shiel

During the holidays, party goes everywhere will be attending a marathon of festive celebrations, from small intimate dinners and family gatherings to elaborate gala affairs.

Whether the party is large or small, fancy or simple, impromptu or carefully planned, one time-honored American tradition that still endures is bringing an appropriate gift for the hostess. A hostess gift, whether sent or hand carried, is a fitting way to say special thanks to friends or family for inviting you to share in a memorable occasion.

One of the long-time favorites for any special hostess is a gift of sterling silver. "Be innovative and think of something personal the hostess wouldn't buy for herself," suggests Linda Meehan, Director of Silver Trust International. "There are so many beautiful, unusual things made in sterling silver today. A sterling silver gift is a true keepsake, one with heirloom quality," Meehan added.

This year there is a vast assortment of affordably priced, delightfully luxurious sterling silver gifts to choose from. When in a dilemma over what to bring, here are some creative, fun suggestions for the hostess:

- For the gourmet, sterling measuring spoons with your favorite family recipe attached.
- A selection of fresh gourmet pasta with silver pasta scoop.
- A silver cake tester with the hostess' favorite holiday cake or cookies.
- A sterling egg timer for the chef of the house.
- A shimmering silver Victorian Christmas tree ornament.
- An elegant sterling heart-shaped pill box to tuck into a purse or grace a silver chain.
- For the avid reader, a silver bookmark tucked inside a book by her favorite author.
- A handsome sterling memo pad holder, business card case or stamp holder for the host.

And remember, one of the beauties of sterling silver gifts is that they can be personalized with a monogram, name or special date to be remembered long after the celebration ends.



Say special thanks to the hostess with a gift she'll treasure long after the celebration—a gift of sterling silver. Shown above: tree bookmark, egg timer, stamp holder and cake tester, all by Diskow; heart-shaped pill box by Casenovia; wreath and heart tree ornaments by Gorham; pasta scoop by Reed & Barton; and measuring spoons and memo pad holder, also by Diskow.



Left to right. Sterling "Paloma" or "Dove" pin by Tiffany's Paloma Picasso, \$350. Call 800-526-0649. Pure silver Nativity Ornament/Pendent by 15th Century Florentine sculptor Andres della Robia, by Sunshine Mining Co., \$15.95. Call 800-274-5837. Perpetual calendar in sterling by Tiffany, \$65. Allegorical figures of love adorn the Metropolitan Museum of Art's copy of 17th Century silver "Marriage Box," \$49.50 - \$175. Call 800-635-5355. A sterling teething ring rattle by Tiffany, \$45. Call 800-526-0549.

SILVER MEDALLIONS MAKE NICE CHRISTMAS GIFTS

For the investor who has everything, there's the **Bull & Bear Market Decision Maker** medallion—one ounce of pure silver (*shown below at left*) that is guaranteed to correctly predict the direction of the market at least 50% of the time. Just flip it and see. Heads you go long. Tails you sell short. Only \$19.95 plus \$3.00 for shipping from Bull & Bear, P.O. Box 4267, Winter Park, FL 32793, or call 1-800-336-BULL. And for your friends that want to help prevent forest fires, or who simply like Smokey the Bear, there's the **Smokey Medallion** (*shown below at center*) that contains one ounce of pure silver. Available from Sunshine Mining Co. for \$25, call 1-800-274-5837. Part of proceeds benefit the Fire Recovery program. Any baseball fan will be delighted with the three new **National Baseball Hall of Fame silver medallions**. They range in weight from 20 grams to 12 troy ounces of pure silver and honor original Hall of Fame inductees Babe Ruth, Ty Cobb, Honus Wagner, Walter Johnson and Christy Mathewson. *One medallion is pictured below at right.* For further information, contact the Hall of Fame Fulfillment Center, P.O. Box 711, Main Street, Cooperstown, NY 13326, or call 1-800-453-2800.



LATEST ON NEW SILVER TECHNOLOGY

The U.S. Navy is now testing silver-iron batteries, recently patented by Westinghouse Electric Corp. The new silver-iron, deep-discharge batteries have a longer shelf life, are more quickly recharged, and are capable of withstanding considerably more abuse than others designed for underseas vehicles.

Microwave cooking is now more appetizing because of a new silver alloy coating developed by Degussa AG. This coating is applied to the bottom of microwave safe dishes, the surface of which will reach 260° C in 5 minutes, resulting in a desirable browning or crisping of food surfaces.

News of this type, from the world's most important research centers, can only be found in the monthly periodical, **New Silver Technology**, which can be ordered from **New Silver Technology, c/o Robert R. Davies and Associates, 1400 Folsom, Suite 2A, Boulder, CO 80302.** Only U.S. \$200 for an annual subscription.

FOR FUTURE REFERENCE:

1989 Silver Prices

1989	High	Low	Average
Sep. 89	5.31	5.02	5.14
Aug. 89	5.31	5.04	5.18
July 89	5.41	5.11	5.23
June 89	5.45	5.10	5.28
May 89	5.68	5.06	5.44
Apr. 89	5.80	5.57	5.78
Mar. 89	6.19	5.72	5.94
Feb. 89	5.97	5.80	5.87
Jan. 89	6.20	5.77	5.98

COMEX

Annual Silver Prices 1977-1988

Year	High	Low	Average
1988	8.06	6.01	6.53
1987	11.25	5.35	6.99
1986	6.32	4.85	5.49
1985	6.89	5.48	6.14
1984	10.17	6.25	8.15
1983	14.74	8.38	11.46
1982	11.30	4.81	7.93
1981	16.53	7.97	10.53
1980	50.35	10.20	20.66
1979	35.00	5.93	11.20
1978	6.12	4.82	5.40
1977	4.99	4.30	4.63

COMEX

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INCORPORATED 1971

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Editor, David U. Groves

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Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	MAY 1989	APRIL 1989	Jan-May 1989	Jan-May 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	4,403,090	4,023,977	4.3	3.0	3.4
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,044,682	3,256,676	3.3	2.8	2.9
From New Scrap (in-plant clippings, waste)*	4,557,844	2,369,131	2.6	2.2	2.5
TOTAL PRODUCTION	12,005,616	9,649,784	10.2	8.1	8.8
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	6,892,730	4,839,675	4.9	4.3	4.4
Shipped Out as 999 Silver	5,137,258	4,902,436	5.2	3.5	4.3
TOTAL DISPOSITION	12,029,988	9,742,111	10.1	7.8	8.7
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-24,372	-92,327	0.5	1.3	0.5
THESE REFINERS' STOCKS AT END OF PERIOD	1,020,546	1,044,918	1.0	1.3	0.5

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	MAY 1989	APRIL 1989	Jan-May 1989	Jan-May 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	12,215,887	13,942,271	13.4	15.3	14.4
From Coins	408	1,795	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,655,088	3,984,474	4.2	3.8	3.8
From New Scrap (in-plant clippings, waste)*	828,883	1,268,811	1.7	1.0	1.1
TOTAL PRODUCTION	16,700,266	19,197,351	19.3	20.2	19.4
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	1,875,281	2,013,240	2.4	2.0	2.1
Shipped Out as 999 Silver	15,423,130	16,529,538	16.3	18.0	17.1
TOTAL DISPOSITION	17,298,411	18,542,778	18.8	20.0	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-598,145	654,573	2.4	1.1	1.7
THESE REFINERS' STOCKS AT END OF PERIOD	10,000,597	10,598,742	10.0	7.0	7.6

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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LATEST SILVER INSTITUTE REFINING STATISTICS

Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	JUNE 1989	MAY 1989	Jan-Jun 1989	Jan-Jun 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	4,101,354	4,403,090	4.3	3.2	3.4
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,560,312	3,044,682	3.1	2.9	2.9
From New Scrap (in-plant clippings, waste)*	2,294,291	4,557,844	2.6	2.2	2.5
TOTAL PRODUCTION	8,955,957	12,005,616	10.0	8.3	8.8
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	4,073,112	6,892,730	4.8	4.4	4.4
Shipped Out as 999 Silver	5,419,405	5,137,258	5.2	3.8	4.3
TOTAL DISPOSITION	9,492,517	12,029,988	10.0	8.2	8.7
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-536,560	-24,372	0.0	0.8	0.5
THESE REFINERS' STOCKS AT END OF PERIOD	483,986	1,020,546	0.5	0.9	0.5

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	JUNE 1989	MAY 1989	Jan-Jun 1989	Jan-Jun 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	14,437,437	12,215,887	13.6	15.3	14.4
From Coins	29	408	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	4,506,505	3,655,088	4.2	3.9	3.8
From New Scrap (in-plant clippings, waste)*	1,710,674	828,883	1.7	1.0	1.1
TOTAL PRODUCTION	20,654,645	16,700,266	19.5	20.2	19.4
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,253,652	1,875,281	2.4	2.1	2.1
Shipped Out as 999 Silver	19,031,467	15,423,130	16.8	18.1	17.1
TOTAL DISPOSITION	21,285,119	17,298,411	19.2	20.2	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-630,474	-598,145	1.8	-0.2	1.7
THESE REFINERS' STOCKS AT END OF PERIOD	9,370,123	10,000,597	9.4	5.7	7.6

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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SILVER-COATED GLASS STARS AT TOKYO AUTO SHOW

by Sam Etris, Senior Technical Consultant, The Silver Institute



Almost 2 million people were introduced to silver-coated glass windows at the Tokyo Motor Show.—



The 1990 Chevrolet Lumina APVs have silver-coated windshields that reflect away 70% of solar heat, reduce glare and decrease air conditioning requirements.—

Although the use of silver-coated automobile glass was almost invisible to the 1.7 million visitors at the Tokyo Motor Show, it was one of the stars of this show which exhibited such new technology as doors that unlock by reading the owner's fingerprints and air-conditioners that pump jasmine, lavender, and other delightful odors into cars.

Silver-coated windshields, introduced to the U.S. market in 1986 by The Ford Motor Company, were shown in Tokyo on the Toyota Lexus, the Nissan Infiniti and Nissan Cima cars—all marketed in Japan. Silvered front and rear windows also appeared on export models of the Infiniti and Cima cars.

Silver is used for both non-powered, solar-reflection applications and for power-heating of glass. No Japanese cars displayed at the show had power-heated glass. However, "The heated version of the silver-coated windshield is just about to be introduced in Japan," said one industry observer. Several Japanese auto manufacturers are now well on their way toward developing electrical systems powerful enough to accommodate heated windshields.

In the U.S.A., Ford has been the leader in developing its silver-coated, heated windshields which were introduced as options in two cars of the 1986 model year. For its 1990 models, Ford's heated glass is now available as an option on seven cars: the Lincoln Continental, Lincoln Mark VII sports car, Town Car, Crown Victoria, Grand Marquis, Taurus and Sable. **On these high-end models, where the silver-coated, heated windshield is offered as part of an attractive option package, the rate of acceptance by new car buyers is proving to be extremely high.**

Beginning with the 1989 model year, General Motors has offered heated windshields, manufactured by Libby-Owens-Ford as a safety option on several of its Cadillac models. And on the new line of GM minivans, the big windshield (over 19 square feet of glass) uses a non-powered, silver-coated glass as standard equipment. This silver glass reflects away some 70% of the solar heat while still transmitting over 70% of the visible light to the driver.

The silvered windshield, manufactured by PPG Industries, reduces glare, decreases the heat load on the air-conditioning system, and reduces the fading of interior materials.

Silver-coated glass, long available from glass manufacturers and architectural firms in West Germany, is now also factored into German automobile production plans. Silver-coated, heated windshields are expected to appear in some German cars by the mid-1990s.

This automobile glass technology is a spin-off from the developments in silver-coated glass for architectural glazing. It permits architects to use glass in the design of buildings and homes without paying the usual high penalty of excessive heating and air conditioning costs.

In 1988, over 10.6 million passenger cars were sold in the U.S., all of which were equipped with silver-ceramic heaters on rear windows (the little brown lines). World sales of automobiles reached over 32.9 million in 1988—and almost all of these were equipped with silver rear window heaters.

It is expected that the growth in the use of silver-heated windshields will follow a curve similar to the silver-ceramic heated rear window. The acceptance of the heated rear window was quite slow at the start, but gradually reached its present 90+% penetration of the world's markets.

JAPAN TO MINT TEN MILLION COMMEMORATIVE SILVER COINS



According to Fumio Tomori of the Mint Bureau of the Ministry of Finance of Japan, in April the Ministry will issue ten million sterling silver 5,000 Yen coins to commemorate the International Garden and Greenery Expo '90 to be held in Osaka from April 1 to September 30, 1990. Mr. Tomori adds that each coin will measure 30 mm in diameter and will weigh 15 grams, and contain 92.5% silver and 7.5% copper.

The design of the new commemorative was sent to The Silver Institute by Mr. Tomori who described the Obverse design—*above, right*—as a rendering of a “Girl with Flower Crown” and the Reverse—*above, left*—the logo of Osaka Expo '90 and the 5,000 Yen face value of the coin.

According to industry sources, the Japanese Ministry of Finance will use 150 metric tons of domestically produced silver for the minting of this coin. Mr. T. Fukami, President of Tanaka Kikinzoku Kogyo K.K.—a member of The Silver Institute—commented that “as silver is now surplus in the domestic market, it is *not* expected that the silver price loco Tokyo will exceed the international price as a result of purchasing eleven million sterling silver blanks from Japanese suppliers.”

THE TEEN SCENE SPARKLES WITH SILVER JEWELRY

by Diana Shiel

The bywords for teens today are independence and individuality. Teens are more aware of what's going on around them and are taking greater responsibility for and care of themselves than ever before. The most fashion-conscious of all kids—teenagers—are spending a great deal of time and money adorning themselves with the hottest fashions and jewelry.

The 1988 Rand Youth Poll reports that teen spending on jewelry has been steadily rising over the past few years. In 1986, teens, aged 16 to 19, spent an average of \$2.55 per week on jewelry, while in 1988 the average for the same age group increased to \$2.85.

According to a recent survey by the Silver Information Center, today's teenagers are not only buying more jewelry, they are buying better jewelry. In sterling silver, girls 13 to 18 buy more frequently than do adults. “Even more interesting,” says Director Linda Meehan, “teens are willing to pay prices comparable to what adults will pay for sterling silver jewelry.”

When it comes to buying decisions on fashion accessories, teenagers are influenced by a wide range of factors: from music, pop stars and screen idols to magazines, videos and, of course, clothing trends. However, studies show that teens are also quite confident in creating their own innovative, individualized styles.

"They are definitely trend-setters," says Susan Pezzelo of *TEEN* Magazine. "They put themselves together and make their own decisions on how they will look and what they'll wear."

What's Hot?

What are teens wearing today? According to the Silver Information Center, hot jewelry items with the teen set include:

- The 60's movement is underway and influencing everything from clothing to accessories, including a return to bell bottoms, mini-skirts, tie-dyed T-shirts and flower power. Adorning these super hip styles are the ever popular silver peace symbols, happy faces, icons, hoop-earrings, and pendants dangling from leather cords.

- Pins provide the answer to all fashion questions this year. Teens are wearing three or four pins clustered together or one bold piece that makes a definite statement. There are popular sterling silver animal shapes, geometric and futuristic free-form designs.

- Sterling charms of all sizes are more important than ever, hanging from bracelets, necklaces and earrings.

- Animals of every species, hearts, crescent moons and star motifs, all in silver, are also "must-haves" this year.

Sterling silver jewelry's affordability and fashion appeal, coupled with its intrinsic value, make this precious metal an appropriate gift for those buying for a special teen, or for a teenager to give to a friend, family member or for themselves.



Newest trend-setting sterling silver jewelry: silver star necklace by Larah; giraffe pin by Zina; mismatched square and circle earrings, and bangle with star, heart and apple charms by Roz Balkin; and braided leather and silver multi-chain bracelets by Ecclisi. Blouse: Pepe; t-shirt: Cherry Lane; and hat: Shady Character.—

SILVER DETECTIVE HELPS BRING CRIMINALS TO JUSTICE

By using a silver-based laboratory technique, developed by the U.S. Federal Bureau of Investigation (FBI), only minute samples of blood, hair follicles or human fluids or tissue are needed to enable the FBI to make a highly reliable identification of an individual.

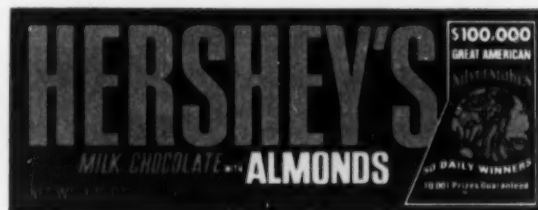
Previously, this technique was brought to a high level of precision at the National Institutes of Health, as a means of identifying the presence or absence of proteins which are indicators of specific diseases. The silver technique is so sensitive that detection of specific proteins is possible at the one part in a trillion level.

The work at the FBI Academy under Bruce Budowle, Research Chemist, concentrates on identifying the DNA (deoxyribonucleic acid—known as the basic molecular building block of life) fragments which can be used to positively identify individuals. "Depending on the number of DNA fragments that you can find at the scene of a crime," says Mr. Budowle, "You can achieve an accuracy rate ranging from one in several thousand to one in several million."

Unlike other, similar but radioactive identification systems, the non-radioactive silver technique is safer and more reliable, produces a permanent record, and converts a highly sophisticated laboratory technique into a system that is applicable to everyday use.

SILVER EAGLES FLY FOR HERSHEY CHOCOLATE USA

Between January 1 and July 19, 1990, Hershey Chocolate U.S.A. will give away a total of 10,000 "beautiful mint-condition one-ounce American Eagle Silver Dollars" to winners of its new "Hershey's Great American Silverstakes." Fifty Silver Eagle winners will be chosen daily by random drawing, and winners of Silver Eagle coins will remain eligible for the Grand Prize Drawing for \$50,000 in U.S. Savings Bonds (or \$25,000 cash). Official entry forms must be used. They are found on Hershey Chocolate products; however, no purchase is necessary. To obtain a free official entry form and complete rules send a **self-addressed, stamped envelope to HERSHEY'S SILVERSTAKES, P.O. Box 8912, Westport, CT 06888.**



MTB TO MARKET MEXICAN SILVER "LIBERTAD" BULLION COIN

The Banco de Mexico (Central Bank of Mexico) recently announced that MTB Banking Corporation has been appointed to be the exclusive world distributor of the Silver Libertad Bullion Coin. Introduced in 1982, the Silver Libertad (Liberty) quickly carved out a niche in the international bullion marketplace.

The Silver Libertad was one of the Western Hemisphere's first legal tender silver bullion coins and is the most recent and significant offspring in Mexico's long and distinguished history of silver coinage. In the 17th and 18th centuries, Mexico exported millions of ounces of silver throughout the world, most of it in the form of 8 Reales coins. Known as "pieces of eight," these Reale coins served as the model for the first U.S. silver dollar.

Since the 16th century, Mexico has served as a mainstay of the international silver trade and today it remains the largest producer of silver in the free world.

"MTB's appointment to be the world wide distributor of the Libertad is a great honor for our entire staff," said Mr. Alvaro Menses, MTB Vice President. He added, "The Silver Libertad Bullion Coin (*shown below*) is gaining in popularity and stature throughout the world. Our proven market-making skills, coupled with the Libertad's beautiful design and intrinsic value, will help make these coins formidable competitors in today's bullion coin markets."



FOR FUTURE REFERENCE: 1989 Silver Prices

1989	High	Low	Average
Oct. 89	5.25	5.02	5.14
Sep. 89	5.31	5.02	5.14
Aug. 89	5.31	5.04	5.18
July 89	5.41	5.11	5.23
June 89	5.45	5.10	5.28
May 89	5.68	5.06	5.44
Apr. 89	5.80	5.57	5.78
Mar. 89	6.19	5.72	5.94
Feb. 89	5.97	5.80	5.87
Jan. 89	6.20	5.77	5.98

COMEX

Annual Silver Prices 1977-1988

Year	High	Low	Average
1988	8.06	6.01	6.53
1987	11.25	5.35	6.99
1986	6.32	4.85	5.49
1985	6.89	5.48	6.14
1984	10.17	6.25	8.15
1983	14.74	8.38	11.46
1982	11.30	4.81	7.93
1981	16.53	7.97	10.53
1980	50.35	10.20	20.66
1979	35.00	5.93	11.20
1978	6.12	4.82	5.40
1977	4.99	4.30	4.63

COMEX

THE SILVER INSTITUTE

A WORLDWIDE ASSOCIATION OF MINERS, REFINERS, FABRICATORS AND MANUFACTURERS
INCORPORATED 1971

1026 16th Street, NW, Suite 101, Washington, D.C. 20036. Tel. (202) 783-0500, Telefax (202) 783-2127

All information in this letter is based on sources considered reliable, but is not guaranteed by The Silver Institute.

Editor, David U. Groves

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LATEST SILVER INSTITUTE REFINING STATISTICS

Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	JULY 1989	JUNE 1989	Jan-Jul 1989	Jan-Jul 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	3,739,056	4,101,354	4.2	3.2	3.4
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	1,482,332	2,560,312	2.9	2.8	2.9
From New Scrap (in-plant clippings, waste)*	2,500,665	2,294,291	2.5	2.5	2.5
TOTAL PRODUCTION	7,722,053	8,955,957	9.7	8.6	8.8
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	3,252,202	4,073,112	4.5	4.6	4.4
Shipped Out as 999 Silver	3,734,831	5,419,405	5.0	3.9	4.3
TOTAL DISPOSITION	6,987,033	9,492,517	9.6	8.5	8.7
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	735,020	-536,560	0.7	0.8	0.5
THESE REFINERS' STOCKS AT END OF PERIOD	1,219,006	483,986	1.2	0.8	0.5

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	JULY 1989	JUNE 1989	Jan-Jul 1989	Jan-Jul 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	13,379,655	14,437,437	13.5	15.1	14.4
From Coins	2	29	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,885,166	4,506,505	4.2	3.8	3.8
From New Scrap (in-plant clippings, waste)*	869,017	1,710,674	1.6	1.0	1.1
TOTAL PRODUCTION	18,133,840	20,654,645	19.3	19.8	19.4
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,097,283	2,253,652	2.4	2.0	2.1
Shipped Out as 999 Silver	14,676,019	19,031,467	16.5	17.9	17.1
TOTAL DISPOSITION	16,773,302	21,285,119	18.9	19.9	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	1,360,538	-630,474	3.2	-0.6	1.7
THESE REFINERS' STOCKS AT END OF PERIOD	10,730,661	9,370,123	10.7	5.2	7.6

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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LATEST SILVER INSTITUTE REFINING STATISTICS

Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	AUGUST 1989	JULY 1989	Jan-Aug 1989	Jan-Aug 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	4,375,265	3,739,056	4.2	3.3	3.4
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,658,443	1,482,332	2.9	2.9	2.9
From New Scrap (in-plant clippings, waste)*	2,303,237	2,500,665	2.5	2.6	2.5
TOTAL PRODUCTION	9,336,945	7,722,053	9.6	8.8	8.8
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	3,945,547	3,252,202	4.5	4.6	4.4
Shipped Out as 999 Silver	5,047,916	3,734,831	5.0	4.1	4.3
TOTAL DISPOSITION	8,993,463	6,987,033	9.5	8.7	8.7
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	343,482	735,020	1.1	0.5	0.5
THESE REFINERS' STOCKS AT END OF PERIOD	1,562,488	1,219,006	1.6	0.5	0.5

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	AUGUST 1989	JULY 1989	Jan-Aug 1989	Jan-Aug 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	14,182,242	13,379,655	13.6	14.8	14.4
From Coins	682	2	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,795,389	3,885,166	4.1	3.7	3.8
From New Scrap (in-plant clippings, waste)*	1,016,960	869,017	1.5	1.0	1.1
TOTAL PRODUCTION	18,995,273	18,133,840	19.3	19.5	19.4
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,275,581	2,097,283	2.4	1.9	2.1
Shipped Out as 999 Silver	16,618,127	14,676,019	16.5	17.5	17.1
TOTAL DISPOSITION	18,893,708	16,773,302	18.9	19.4	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	101,565	1,360,538	3.3	0.7	1.7
THESE REFINERS' STOCKS AT END OF PERIOD	10,832,226	10,730,661	10.8	6.5	7.6

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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THE SILVER INSTITUTE LETTER

WORLDWIDE INFORMATION ON SILVER

PUBLISHED SINCE 1971

FEBRUARY - MARCH 1990

WORLD INCREASES DEMAND FOR SILVER!

The world's industrial demand for silver jumped 30% from 379.5 million ounces in 1985 to an estimated 493.5 million ounces in 1989. And according to Shearson, Lehman Hutton's recently published report entitled, "Annual Review of the World Silver Industry 1989," the world's demand for silver will increase by another 3.9% in 1990 to 512.9 million ounces.

The table at the bottom of the page reflects the favorable impact that increased disposable income and a larger amount of leisure time has had on the use of silver by the Photographic and Jewelry sectors. The use of silver in photography has been growing at the average rate of 5.3% annually and should grow by 4.6% during 1990.

In reference to jewelry, sterlingware and silver-plate, after a period in the doldrums in the mid-1980s, Shearson Lehman Hutton reports the worldwide use of silver in jewelry and sterlingware will grow from 53.5 million ounces in 1985 to an estimated 98.4 million in 1990 and "has been outstripping the electrical and electronic sector as silver's second largest individual end-use since 1987" with an annual average rate of growth of 15% "as the metal's comparatively low and stable price has combined with successful marketing and promotional efforts to revitalize interest."

In Europe, between 1985 and 1989, the use of silver by the silver jewelry and decorative sector grew from 28.5 million ounces to 61.7 million ounces, and in Japan, where silver jewelry is very attractive to the younger generation because of its beauty and affordability, the offtake of silver for this sector grew from 4.6 million ounces in 1985 to 10.8 million in 1989 according to Shearson Lehman Hutton.

In the United States, a marketing arm of The Silver Institute was created in 1988 with the objective of increasing U.S. consumer purchases of silver. It is named Silver Trust International and is located at 295 Madison Avenue, 19th Floor, New York City, NY 10017. Although its activities have been constrained by the limited availability of funds, it has proven that it is possible to achieve major increases in the purchases of silver consumer products through well-funded marketing and promotional efforts.



In 1989, over 62% of the world's industrial use of silver was for photography, jewelry and sterlingware. New cameras, such as Kodak's multi-focus 51100XL 35mm camera, (above, right) and new jewelry designs, such as the dramatic jewelry by Diana Vincent (above, left) help stimulate demand for silver.

SILVER INDUSTRIAL OFFTAKE BY SECTOR, 1985 - 1990

(millions of Troy ounces)

	1985	1986	1987	1988	1989	1990
Photography	173.2	181.4	183.5	203.9	216.1	227.5
Electrical sector	75.1	77.0	77.4	78.9	79.7	78.5
Jewelry and silverware	53.5	72.7	82.9	86.7	93.4	98.4
Brazes and solders	23.0	23.6	24.5	24.3	24.7	24.7
Others	41.9	44.1	48.6	50.8	51.6	53.3
Coinage	12.7	24.2	31.0	31.6	28.0	30.5
Total	379.4	423.0	448.0	476.2	493.5	512.9
Year-on-year increase (total) -%		11.5	5.9	6.3	3.6	3.9

(This analysis and chart is based upon data from Shearson Lehman Hutton's book entitled, "Annual Review of the World Silver Industry 1989.")

SILVER MEDALLIONS CAPTURE WESTERN U.S. WILDLIFE

Four treasured paintings by the master portrayer of America's big game, Carl Rungius (1869-1959), depicting the whitetail deer, the wapiti deer, the grizzly bear and the Rocky Mountain bighorn, were chosen as inspiration for the creation of an art medallion collection. An award winning medal sculptor, Eugene Daub, captured the essence of the Rungius paintings in the set of four exquisite museum quality medallions shown above.



According to Sunshine Mining Co., this edition is limited to 1,500 sets and each medallion is: individually numbered; measures 2½" in diameter; contains four troy ounces of pure .999+ fine silver; and costs \$110.00. Each medallion comes with a Certificate of Ownership and a handsome lucite display stand.

In addition, proceeds benefit the Wildlife of the American West Art Museum, P.O. Box 2984, Jackson, Wyoming 83001. For additional details on ordering these pure silver miniature works of art, please call 1-800-2-SILVER (1-800-274-5837), or write to Wildlife Medallions, c/o Sunshine Mining Co., 300 Crescent Court, 15th Floor, Dallas, Texas 75201.

SILVER, THE PRECIOUS METALS INVESTMENT OF THE 90s?

"Although gold is generally viewed as the metal of choice for achieving portfolio diversification, we believe in today's environment, silver should play a more prominent role," said Bernard Savaiko, Senior Metals Analyst of Paine Webber, when he recently addressed the Capital Metals & Materials Forum in Washington, D.C.

In discussing silver as an investment, Mr. Savaiko noted, "Silver is the most attractively priced precious metal" and foresees, in the long term, "a rally back to \$6.50 to \$7.00 as a conceivable target."

This positive assessment from Paine Webber disputes the contention that there is a massive oversupply of silver in COMEX warehouses. Inventories increased following the closing of the London Metal exchange warehouses and the rescinding of the sales tax on precious metals purchases in New York, which lessened the motivation to store silver in tax-free depositories in Delaware. According to Mr. Savaiko, much of the silver in COMEX warehouses is not for immediate delivery and "higher prices may be required before it is sold."

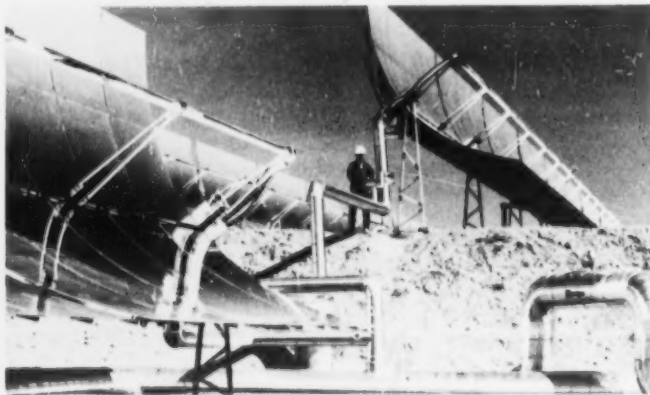
Explaining the financial role of precious metals, he said, "Precious metals have, at times, advanced in price during times of inflation, economic uncertainty, political unrest and during periods of dollar weakness. An investment in precious metals may insulate, to some degree a portfolio from those occurrences that generally devalue financial assets."

Mr. Savaiko remarked that "in an economic downturn, investment demand for silver, along with gold, could soar if financial assets lose their appeal" and "that if only a small percentage of the funds that are currently invested in stocks and bonds is allocated to precious metals, then the ensuing rally could be explosive. Also bolstering investor confidence in silver during a prolonged recession would be the sharp reduction in base metals output," he added. "This is because approximately 75% of all newly mined silver is derived as a by-product of these operations."

Paine Webber concluded "that the silver market has discounted the primary bearish fundamentals," and, he said, "The market is now susceptible to an upside surprise."

The Capital Meals & Materials Forum is sponsored jointly by the Departments of the Interior and Treasury. **Complimentary copies of Mr. Savaiko's remarks are available from The Silver Information Center, Suite 101, 1026 16th Street, N.W., Washington, D.C. 20036.**

SILVER SAVES MILLIONS OF BARRELS OF OIL



The seemingly endless rows of silvered mirrors, *pictured above*, are part of the two plants that are already in operation in Kramer Junction, California, and are supplying Southern California Edison with enough power to meet the needs of 270,000 people, saving more than one million barrels of oil each year.

By the end of 1994, LUZ International, 924 Westwood Blvd., Suite 1000, Los Angeles, CA 90024, will have constructed another five silver-coated mirror solar-electric power plants in Southern California which will generate enough electric power to serve the residential electrical demand of 810,000 people in Southern California. The United States will then be able to reduce its oil imports by more than 3 million barrels annually.

The estimated 80,000 troy ounces of silver used in coating this project's 650,000 mirrors reduces U.S. dependency on oil imports and, since silver-coated mirrors produce electricity without toxic stack emissions, without emitting globally warming carbon dioxide, and without producing acidic wastes, silver will help make the Los Angeles basin a much healthier place to live.

In addition, to these benefits, LUZ International's improving technology has steadily reduced the cost of generating electricity. When the first LUZ plant was constructed in 1984, the cost was 24 cents per kilowatt. Now, however, its newest silver solar electric generating system has reduced costs to 8 cents per kilowatt, a price that is competitive with many other power systems, but without any of their dangerous by-products.

"VALUE FORECASTER" ISSUES BULLISH REPORT ON SILVER

"The silver supply/demand situation strongly suggests that the currently narrow supply shortfall will widen dramatically during the next ten years, creating major supply deficits in the 1990s not seen since the 1970s.

Silver prices must rise substantially to encourage sufficient liquidations from above-ground stocks to induce secondary supplies to flow into the market," according to an 88-page Special Report entitled *Investing in Silver*, issued recently by "Value Forecaster," P.O. Box 50, Pilot Hills, California 95664—a California based investment research firm.

Investing in Silver reviews silver's unique history as money, the price history of silver, what drives the increasing demand for silver, silver mine production, the impact of secondary silver supplies on silver prices, a forecast of silver prices for the 1990s and a 27-page section on how to invest in silver, including silver bullion, bonds, equities, futures and options.

This study uses nonlinear econometrics, 94 tables and charts, and information from expert sources to present a clear, understandable analysis of silver's fundamentals.

Chapter 9 is entitled, **Should You Invest in Silver?** Editor & Publisher, Robert A. Freitas, begins by stating that silver is a "strong buy in the \$6s, a steal in the \$5s. Prices in the mid-teens are likely by 1995, and we may see \$20-\$25/oz by the turn of the century."

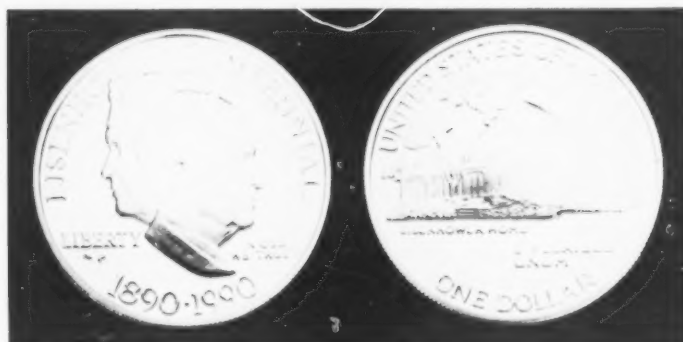
"Usually, it's best to enter and exit markets gradually, but silver is already dirt cheap," and he adds, "I'd get into position as quickly as possible. Silver may trade flat for the next two years, or it may double next month. But I don't think you are going to be able to buy silver much cheaper than \$5. Maybe \$4 if you are very lucky. So what? You'll probably be able to sell at \$15-\$30, sometime during the 1990s. Whether you buy at \$5, or \$6, it's still a hefty gain that's well worth waiting for."

For readers of *The Silver Institute Letter*, this excellent study is free with a one year subscription to the monthly "Value Forecaster" newsletter (\$195.00), or it can be purchased separately for \$35. Mention having read about it in *The Silver Institute Letter* and receive a \$5 discount.

EISENHOWER CENTENNIAL SILVER DOLLAR NOW AVAILABLE

The United States Mint announced recently that the Eisenhower Centennial Silver Dollar coin is now available for ordering. The legal tender coin commemorates the 100th anniversary of the birth of Dwight D. Eisenhower, military hero and 34th President of the United States.

In order to highlight his military and peacetime services to his country, a unique design (pictured below), showing a profile of President Eisenhower superimposed on a profile of Five-Star General Eisenhower, is shown on the obverse of this coin. The reverse shows the Gettysburg National Historical Site, home of Dwight and Mamie Eisenhower.



As of February 28, this handsome coin which measures 1.5" in diameter, weighs 26.73 grams and is 90% silver, will be sold at: \$29 for a single proof coin and \$26 for a single uncirculated coin. The coins will be available at the Mint, participating banks and retailers at regular prices. Orders may be placed by calling the Mint toll-free at 1-800-832-5300, ext 157.

To add your name to the Mint's mailing list, write to: United States Mint, 10001 Aerospace Drive, Lanham, MD 20706. Tel. (301) 436-7400.

FOR FUTURE REFERENCE: 1989 Silver Prices

1989	High	Low	Average
Dec. 89	5.74	5.12	5.52
Nov. 89	5.82	5.14	5.49
Oct. 89	5.25	5.02	5.14
Sep. 89	5.31	5.02	5.14
Aug. 89	5.31	5.04	5.18
July 89	5.41	5.11	5.23
June 89	5.45	5.10	5.28
May 89	5.68	5.06	5.44
Apr. 89	5.80	5.57	5.78
Mar. 89	6.19	5.72	5.94
Feb. 89	5.97	5.80	5.87
Jan. 89	6.20	5.77	5.98

COMEX

Annual Silver Prices 1977-1989

Year	High	Low	Average
1989	6.20	5.02	5.47
1988	8.06	6.01	6.53
1987	11.25	5.35	6.99
1986	6.32	4.85	5.49
1985	6.89	5.48	6.14
1984	10.17	6.25	8.15
1983	14.74	8.38	11.46
1982	11.30	4.81	7.93
1981	16.53	7.97	10.53
1980	50.35	10.20	20.66
1979	35.00	5.93	11.20
1978	6.12	4.82	5.40
1977	4.99	4.30	4.63

COMEX

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Editor: David L. Graves

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MAY 15 '90 11:11 GOLD AND SILVER INSTITUTES

LATEST SILVER INSTITUTE REFINING STATISTICS

Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	NOVEMBER 1989	OCTOBER 1989	Jan-Nov 1989	Jan-Nov 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	4,668,440	3,523,997	4.2	3.3	3.4
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,601,557	2,937,473	2.8	2.9	2.9
From New Scrap (in-plant clippings, waste)*	2,829,424	1,439,425	2.4	2.4	2.5
TOTAL PRODUCTION	10,099,421	7,900,895	9.4	8.7	8.8
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	4,803,627	3,646,060	4.3	4.6	4.4
Shipped Out as 999 Silver	5,548,587	5,024,291	5.0	4.1	4.3
TOTAL DISPOSITION	10,352,214	8,670,351	9.3	8.6	8.7
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-252,793	-769,456	0.7	1.1	0.5
THESE REFINERS' STOCKS AT END OF PERIOD	1,165,996	1,418,789	1.2	1.1	0.5

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	NOVEMBER 1989	OCTOBER 1989	Jan-Nov 1989	Jan-Nov 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	15,216,632	14,572,732	13.9	14.6	14.4
From Coins	446	12,556	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	4,032,108	4,179,724	4.1	3.9	3.8
From New Scrap (in-plant clippings, waste)*	1,659,380	1,957,621	1.6	1.1	1.1
TOTAL PRODUCTION	20,908,566	20,722,633	19.6	19.6	19.4
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,579,301	2,257,307	2.4	2.0	2.1
Shipped Out as 999 Silver	17,570,127	17,336,592	16.7	17.2	17.1
TOTAL DISPOSITION	20,149,428	19,593,899	19.1	19.2	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	759,138	1,128,734	5.5	3.4	1.7
THESE REFINERS' STOCKS AT END OF PERIOD	13,095,798	12,336,660	13.1	9.3	7.6

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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MAY 15 '90 11:11 GOLD AND SILVER INSTITUTES

LATEST SILVER INSTITUTE REFINING STATISTICS

Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	DECEMBER 1989	NOVEMBER 1989	Jan-Dec 1989	Jan-Dec 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	3,965,674	4,668,440	4.2	3.4	3.4
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,032,421	2,601,557	2.7	2.9	2.9
From New Scrap (in-plant clippings, waste)*	3,000,642	2,829,424	2.5	2.5	2.5
TOTAL PRODUCTION	8,998,737	10,099,421	9.3	8.8	8.8
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	4,233,758	4,803,627	4.3	4.4	4.4
Shipped Out as 999 Silver	5,632,081	5,548,587	5.0	4.3	4.3
TOTAL DISPOSITION	9,865,839	10,352,214	9.4	8.7	8.7
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-867,102	-252,793	-0.2	0.5	0.5
THESE REFINERS' STOCKS AT END OF PERIOD	298,894	1,165,996	0.3	0.5	0.5

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	DECEMBER 1989	NOVEMBER 1989	Jan-Dec 1989	Jan-Dec 1988	Full Year 1988
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	13,720,827	15,216,632	13.8	14.4	14.4
From Coins	0	446	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,706,240	4,032,108	4.1	3.8	3.8
From New Scrap (in-plant clippings, waste)*	883,748	1,659,380	1.5	1.1	1.1
TOTAL PRODUCTION	18,310,815	20,908,566	19.5	19.4	19.4
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,161,286	2,579,301	2.3	2.1	2.1
Shipped Out as 999 Silver	18,133,643	17,570,127	16.8	17.1	17.1
TOTAL DISPOSITION	20,294,929	20,149,428	19.2	19.2	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-1,984,114	759,138	3.5	1.7	1.7
THESE REFINERS' STOCKS AT END OF PERIOD	11,111,684	13,095,798	11.1	7.6	7.6

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

THE SILVER INSTITUTE
A WORLDWIDE ASSOCIATION OF MINERS, REFINERS, FABRICATORS AND MANUFACTURERS
INCORPORATED 1971

1026 16TH. ST., N.W., Suite 101, Washington, D.C. 20036. Tel. (202) 783-0500.

THE SILVER INSTITUTE LETTER

WORLDWIDE INFORMATION ON SILVER

PUBLISHED SINCE 1971

APRIL - MAY 1990

SILVER DEMAND TRENDS ANALYZED FOR SILVER INSTITUTE MEMBERS

Over 200 representatives of corporate members of The Silver and Gold Institutes, their wives and guests attended the Institutes' annual meetings in Scottsdale, Arizona, and listened to reports on recent trends in industrial and consumer demand for silver by leading experts.

Peter Krause, of Imaging Technology Markets, Inc. examined the reasons for the photography industry's ever-increasing use of silver while Engelhard's Technical Service Manager, Robert Gentry, discussed trends in the use of silver in electrical and electronic applications. Sungho Jin, of AT&T Bell Laboratories, confirmed the potential importance of silver's future role in the development and manufacture of high-temperature superconductors.

The Marketing Director of Silver Trust International, Katherine Wolf, presented detailed reports on some of the amazing successes STI and its co-op partners have had in increasing sales of silver consumer products during 1989. She also appealed to non-participating silver miners to join the nine firms (ASARCO, Callahan, Hecla, Nerco, Noranda, Coeur d'Alene, Falconbridge/Kidd Creek, Echo Bay Mines and Sunshine Mining) that have financed these programs which have **achieved dramatic silver sales growth whenever and wherever funds and STI marketing assistance were available.**

Members of The Silver Institute were also treated to in-depth situation reports on silver and gold in the European economic community by Robert Guy, Director of England's N.M. Rothschild & Sons; India by S.G. Daga, Director, Luxmi Traders; Japan, by Shigeru Yagioka, Director, Mitsubishi Metals; and the Soviet Union by E. Gostev, Deputy Chairman of the Bank for Foreign Economic Affairs of the USSR.

Looking into the future, the prospects for silver in the 1990s were explored from various points of view. The U.S. Government's view was presented by T.S. Ary, Director, U.S. Bureau of Mines, followed by a miner's view by Richard C. Krause, Exec. V.P. and CFO of Echo Bay Mines, and an analyst's view by Jeff Christian, Managing Director of the CPM Group.

Silver Institute Letter subscribers may obtain a copy of the complete "1990 Annual Meetings Speakers' Papers" for only \$US200 inside the USA and \$US220 outside the USA. All checks must be drawn on a U.S. bank account or Money Order made payable to The Silver Institute and mailed to The Silver Institute, 1026 Sixteenth Street, N.W., Suite 101, Washington, D.C. 20036.

PHOTOGRAPHY INDUSTRY WILL USE 20% MORE SILVER BY 1995

In 1989, the photographic world used 191 million troy ounces of silver in the manufacture of X-Ray film (59.7 million ounces), Graphic Arts film (30.5), Color Negatives (26.8), Microfilms (4.8), Color film (4.4), other film products (22.3 million), and Photographic papers (42.5) according to a speech that Peter Krause, Vice President, Imaging Technology/Markets Inc. gave at the recent Silver Institute Annual Meeting. Global use of silver for the manufacture of these photographic products are concentrated



(Left to Right) Charlie Snead, President, Callahan Mining Corp. and Ex-President of The Silver Institute; T.S. Ary, Director, U.S. Bureau of Mines and Elias Ayub, Deputy Minister of Mines of Mexico at The Silver Institute's Annual Meeting in Scottsdale, Arizona.



(L to R) S.G. Daga, Director of Luxmi Traders of India; Maurice Lafontaine, Master and President, Royal Canadian Mint; and Robert Guy, Director, N.M. Rothschild Ltd. of London, England provided other Institute members with information on the global silver market.

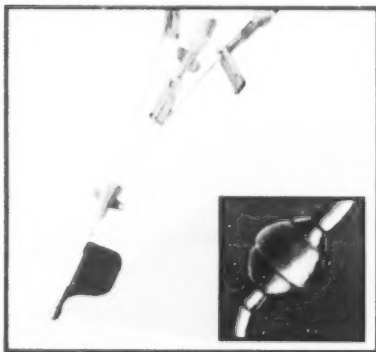
in the USA (34.5%), Europe (31.4%) and Japan (31.9%) with the rest of the world accounting for only 2.2%.

Forecasting future demand for silver in X-ray films, Mr. Krause said that consumption of silver is projected to increase by 3% per year. "The main reasons for the anticipated increase in use are: • The steady increase in world population. • The aging of the population in the most developed countries which also have the most extensive health services for the ages. • The expansion of health services throughout the world. • The increasing use of new diagnostic methods that result in recording of multiple images, most often with silver-halide type films." In the second most important usage, the use of silver in **Graphics Arts**, which, he explained, included films, phototypesetting papers and "diffusion transfer materials," is projected to increase by 2% per year between 1990 and 1995.

The third largest film category, **color negative films, accounts for over 90% of all photographs made by amateurs worldwide.** Both demand for this film and use of silver in its production are expected to rise at the rate of 5% per year, predicted Mr. Krause. He explained that continually increasing demand is foreseen because: • Most people prefer color prints over all other kinds of photographs. • The development of fully automatic, inexpensive 35mm cameras with electronic flash has made picture taking easy and highly reliable. • Photofinishing outlets provide fast and convenient service. • Electronic still photography will fail to affect the growth of amateur photography appreciably during the next five years because it won't match the quality, price and convenience of the silver-halide system.

Insofar as photographic papers are concerned, due to its loss of popularity, black and white papers will continue on their slow 2% per year downward trend, matched by an equal rate of decline in silver consumption. On the other hand, demand for color paper, is expected to increase by 7% per year while the use of silver for this paper will increase by 6% per year.

In conclusion, Mr. Krause told Silver Institute members, "the total, worldwide consumption of silver in photography is projected to increase from 191 million troy ounces in 1989 to 230 million troy ounces in 1995."



VitaCuff's silver ions dramatically reduce site infection for 4 to 6 weeks. Silver ions also promote tissue ingrowth and helps seal the incision.

SILVER NOW PROTECTS CRITICALLY ILL PATIENTS

In a patient critically ill with cancer or heart difficulties, a massive infusion of drugs must be given to the patient through a central venous catheter through the chest, directly to the patient's heart. Sometimes infection begins at the catheter insertion site, then uses the catheter as a direct route to the patient's blood stream, causing catastrophic septicemia or life-threatening blood poisoning.

Now, however, through the use of the silver-impregnated **VitaCuff** (shown at left) on the catheter, the risk of blood poisoning has been dramatically reduced. The **VitaCuff** is slid down the catheter until it can be inserted just beneath the patient's skin at the point of the catheter's insertion. Antimicrobial silver ions go to work, providing effective protection from four to six weeks. According to a report by **Becton Dickinson Critical Care Monitoring**, 9450 South State Street, Sandy, Utah 84070, "Clinical trials of VitaCuff have demonstrated up to a three-fold reduction in site infection and bacteremia, and notes that "VitaCuff is easily positioned, promotes tissue ingrowth that helps seal the incision and does *not* require surgical removal." For additional information, please contact Becton Dickinson Sales Manager, R. Pomianek, on 1 (800) 453-4538.

The November 1989 issue of *New Silver Technology* reports that Japan's Central Research Institute has discovered that by blending silver-protein with latex polymers, **life-long sterility is provided for catheters, rubber feeding tubes and mattress covers!**

SILVER TRUST INTERNATIONAL PROGRAMS SPARK AMAZING RESULTS!

With less than three million dollars, Silver Trust International (STI) and its cooperative advertising partners produced advertising, direct mail and public relations campaigns that pushed the annual volume of the participating cooperative partners' silver retail sales to approximately 250 million dollars, according to Katherine Wolf, Marketing Director of **Silver Trust International**, 295 Madison Avenue, 19th Floor, New York City, NY 10017.

Carrying the slogan, "Sterling Silver: The Eternal Element of Style," STI advertisements appeared in one or more issues of 14 of the most popular upscale women's magazines—including *Harper's Bazaar*, *Vogue*, *Taxi*, *Working Woman* and *W*—during the last quarter of 1989, delivering over 50 million impressions. As a result of this campaign, one of STI's advertising partners reported that **his firm's 1989 silver jewelry dollar volume skyrocketed 104% during the promotional period.** Another partner reported a 25% increase in his dollar volume, while still another reported an increase of 13.4%. Results from STI-supported Direct Mail Programs were even more impressive!

Working with STI on both magazine advertising and direct mail projects, a national chain of department stores increased its silver dollar sales volume by 58%, and the **items that were featured in its silver sales catalog dramatically increased 263%! The gross sales were 60 times the cost of the promotion.**

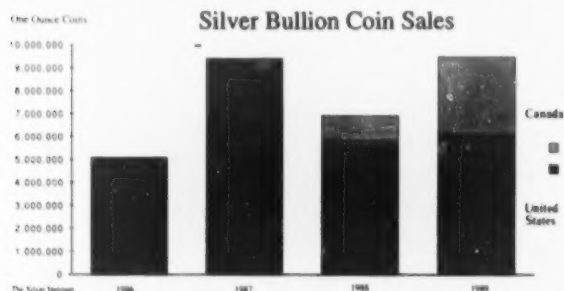
Another STI partner—both a manufacturer and retailer—created a new 16-page silver jewelry catalog which was mailed to almost 200,000 women. Sales of items in the catalog increased 171%! Other STI partners reaped similar rewards as a result of STI advice and financial cooperation.

After reviewing the demographic, psychographic and economic factors that are going to determine the course of consumer buying habits in the nineties, Ms. Wolf concluded, "Given the predicted consumer buying criteria of value, quality, real precious metal, and most importantly, affordable luxury—silver has the potential of becoming 'The Metal of the Nineties'—all silver needs is consistent marketing support to pull it through the pipeline and accomplish this attainable goal."



Silver Trust International successfully promoted sterling silver jewelry by creating beautiful, effective booklets and other publicity materials and by cooperating with famous department stores in their promotions. (Left) Nordstroms promotes Bayanihan's sterling silver jewelry. (Center) This free STI booklet is on the eternal style and value of sterling silver jewelry. (Right) Saks Fifth Avenue uses a giant post card to promote the Peter Brams' sterling silver jewelry collection.

STRONG DEMAND FOR SILVER BULLION COINS



Silver investors still love silver bullion coins. Recently released data from the U.S. Mint and the Royal Canadian Mint show that in 1989, sales of their silver bullion coins increased 37% to 9,491,000 troy ounces, up from 6,931,000 in 1988.

The Canadian Maple Leaf, in its first full year of availability, 1989, achieved sales of 3,325,000 troy ounces, an increase of 200% compared with a 1988 total of 1,062,000 troy ounces.

Despite this Canadian competition, American Silver Eagle coin sales increased from 5,869,000 ounces in 1988 to 6,166,000 troy ounces in 1989—and 1990 sales are off to a brisk start. The U.S. Mint has sold 2,066,000 ounces in January and February—an early start that should help make 1990 another banner year for the Silver Eagle!

FASCINATING DEVELOPMENTS IN NEW SILVER TECHNOLOGY

- An excellent heat-reflective silver-titanium cellulose acetate sheet for application to glass is supplied with an adhesive backing, thus permitting its quick and easy application to refrigerated food display cabinets, patio doors, vehicle windows, building glazing, or wherever transparency and energy saving is a concern. Produced by Sumitomo Chemical Co., Osaka, Japan.

- Pitted and scored working surfaces of engines, gears, and transmissions can be restored by a new lubricating oil additive containing a finely powdered silver alloy. Research by Lubrallo S.r.l., Italy.

ENORMOUS STRENGTH OF DEMAND FOR SILVER IN INDIA

In 1989, India consumed about 860 tons of silver, or 418 tons more than was available on the open market in India. Clandestine imports were used to supply the needed silver. India's **demand for silver is expected to grow at a rate of about 20% per year** between now and 1994, causing the gap between demand and open market silver supplies to grow to an estimated 507 tons, according to a speech by Shri Gopal Daga of India's Luxmi Traders at the recent Annual Meeting of The Silver Institute.

In India, 42.5% of today's total use of silver is used in the manufacture of jewelry, arts and crafts, utensils, finely drawn silver wire and silver foil. Many of these items are consumed by the entire cross-section of the population of India, particularly silver foil which is used to decorate food products and silver wire which is used extensively in India's dress-making industry.

"Photography consumes 25% of total silver used per year in India," added Mr. Daga, "There is a bright prospect for its growth in India because of its ever-growing cinematographic industry (India is the foremost film making country in the world) and greater consciousness of the people about health-care through preventive and diagnostic approaches which make extensive use of X-rays and other silver-using radio-graphic measures."

Electrical and electronic equipment consume about 172 tons of silver per year in the form of contact materials for its consumption through Original Equipment Manufacturers (OEM), replacement markets, and tailor-made components for power controls. To meet the demand for dental alloys, as well as for various plating salts for electroplating, catalysts and other chemicals, another 43 tons of silver are required each year. Another 4.6% of India's silver is used in the manufacture of brazing alloys and welding wires and 2.9% of its silver is used to make silver pastes of different types and grades. "Massive technology innovations in the fields of contact materials, brazing alloys, etc. are also going on. All of these are widening the existing gap of resource availability."

Mr. Daga concluded by noting, "Population in India is as high as 850 million. Hence, even with very low per capita consumption of precious metals, total consumption by the country is sizable. Today, **India is occupying fourth place in industrial use of silver**; just behind the U.S.A. Japan and West Germany. The trend is there and **India may supersede West Germany and even Japan in the industrial use of silver by the turn of the century.**"

FOR FUTURE REFERENCE: SILVER PRICES

1990	High	Low	Average
Mar.	5.16	4.89	5.06
Feb.	5.35	5.05	5.27
Jan.	5.27	5.12	5.24

COMEX

Annual Silver Prices 1979-1989

Year	High	Low	Average
1989	6.20	5.02	5.47
1988	8.06	6.01	6.53
1987	11.25	5.35	6.99
1986	6.32	4.85	5.49
1985	6.89	5.48	6.14
1984	10.17	6.25	8.15
1983	14.74	8.38	11.46
1982	11.30	4.81	7.93
1981	16.53	7.97	10.53
1980	50.35	10.20	20.66
1979	35.00	5.93	11.20

COMEX

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Editor: David U. Groves

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TEST SILVER INSTITUTE REFINING STATISTICS

Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	JANUARY 1990	DECEMBER 1989	Jan 1990	Jan 1989	Full Year 1989
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	4,133,673	3,965,674	4.1	4.3	4.2
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,667,528	2,032,421	2.7	3.0	2.7
From New Scrap (in-plant clippings, waste)*	2,136,829	3,000,642	2.1	2.7	2.5
TOTAL PRODUCTION	8,938,030	8,998,737	8.9	10.0	9.3
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	4,109,376	4,233,758	4.1	4.7	4.3
Shipped Out as 999 Silver	4,356,627	5,632,081	4.4	4.6	5.0
TOTAL DISPOSITION	8,466,003	9,865,839	8.5	9.4	9.4
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	472,027	-867,102	0.5	0.7	-0.2
THESE REFINERS' STOCKS AT END OF PERIOD	770,921	298,894	0.8	1.2	0.3

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	JANUARY 1990	DECEMBER 1989	Jan 1990	Jan 1989	Full Year 1989
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	14,767,380	13,720,827	14.8	13.5	13.8
From Coins	96	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,964,230	3,706,240	3.0	4.2	4.1
From New Scrap (in-plant clippings, waste)*	1,218,258	883,748	1.2	1.5	1.5
TOTAL PRODUCTION	18,949,964	18,310,815	18.9	19.3	19.5
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,237,736	2,161,286	2.2	2.4	2.3
Shipped Out as 999 Silver	15,991,053	18,133,643	16.0	15.4	16.8
TOTAL DISPOSITION	18,228,789	20,294,929	18.2	17.8	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	721,175	-1,984,114	0.7	1.5	3.5
THESE REFINERS' STOCKS AT END OF PERIOD	11,832,859	11,111,684	11.8	9.1	11.1

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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ATEST SILVER INSTITUTE REFINING STATISTICS

Production and Disposition of 999 Silver by All Known Refiners in the United States

	TROY OUNCES		MILLION TROY OUNCES		
	FEBRUARY 1990	JANUARY 1990	Jan-Feb 1990	Jan-Feb 1989	Full Year 1989
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	4,004,109	4,133,673	4.1	4.4	4.2
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,230,279	2,667,528	2.4	2.8	2.7
From New Scrap (in-plant clippings, waste)*	1,605,043	2,136,829	1.9	2.5	2.5
TOTAL PRODUCTION	7,839,431	8,938,030	8.4	9.8	9.3
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	3,217,475	4,109,376	3.7	4.3	4.3
Shipped Out as 999 Silver	4,195,789	4,356,627	4.3	4.7	5.0
TOTAL DISPOSITION	7,413,264	8,466,003	7.9	9.0	9.4
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	426,167	472,027	0.9	1.5	-0.2
THESE REFINERS' STOCKS AT END OF PERIOD	1,197,088	770,921	1.2	2.0	0.3

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	FEBRUARY 1990	JANUARY 1990	Jan-Feb 1990	Jan-Feb 1989	Full Year 1989
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	14,067,277	14,767,380	14.4	13.8	13.8
From Coins	0	96	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,500,805	2,964,230	3.2	4.2	4.1
From New Scrap (in-plant clippings, waste)*	749,993	1,218,258	1.0	2.0	1.5
TOTAL PRODUCTION	18,318,075	18,949,964	18.6	20.1	19.5
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,003,567	2,237,736	2.1	2.5	2.3
Shipped Out as 999 Silver	16,186,684	15,991,053	16.1	16.6	16.8
TOTAL DISPOSITION	18,190,251	18,228,789	18.2	19.2	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	127,824	721,175	0.8	1.8	3.5
THESE REFINERS' STOCKS AT END OF PERIOD	11,960,683	11,832,859	12.0	9.3	11.1

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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JUNE - JULY 1990

EXPANDED 1990 FALL SILVER JEWELRY CAMPAIGN

Details of Silver Trust International's (STI) national cooperative consumer advertising campaign to promote sterling silver jewelry were announced recently by Ms. Katherine Wolf, Director of Marketing of STI. She said, "Due to the success of last year's premier cooperative campaign that garnered sales increases as high as 104%, we plan to expand this fall's program.

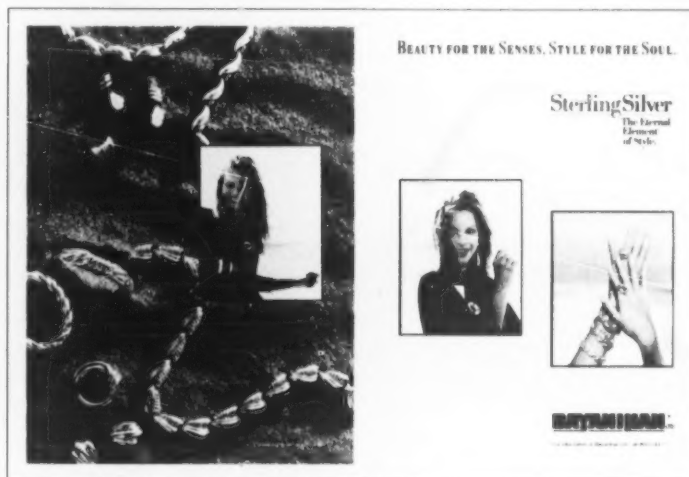
Plans for the \$2.5 million promotional effort, supported by direct mail, special events and a multi-media public relations program, calls for an extensive magazine print schedule targeted primarily to college-educated women, aged 25 to 49, with personal incomes of \$30 thousand or more.

Beginning in September through December, the above advertisement, signed by Bayanihan, and two others signed by Nancy & Rise Ltd. and Peter Brams, will be seen by more than 50 million potential silver buyers in such major women's, men's and dual-audience fashion and lifestyle magazines as *Elle*, *Esquire*, *Fame*, *Gentlemen's Quarterly*, *Harper's Bazaar*, *Self*, *Vogue* and *Working Woman*.

The three cooperative ads will be in the successful and recognizable black and white double-page spread format of provocative lifestyle and product photography, each signed by an individual jewelry manufacturer, however, this year's campaign will have a different focus.

"Based upon the valuable feedback from retailers, we decided to create a campaign that is much more product-focused," explained Ms. Wolf, "however, it also addresses lifestyle, image and fashion. In last year's campaign the emphasis was on a model wearing silver jewelry. This year, a detailed photo dominates the two-page spread, accompanied by smaller photos that relate an involving story about the jewelry wearer. Making jewelry the star will bring immediacy to the product, thus promoting a direct consumer purchase," added Ms. Wolf.

Along with the memorable sign-off line, *Sterling Silver: The Eternal Element of Style*, the ads will feature an 800 toll-free number and retail listing. The fall's campaign partners were chosen based on their national distribution, interest and ability to promote their names as brands. Upscale, trendsetting women's sterling silver jewelry will grace the Bayanihan and Nancy & Rise ads; and, for the first time, men's jewelry and accessories by Peter Brams will be spotlighted in the campaign. "We chose to promote our men's sterling line because of the tremendous amount of growth we realized in 1989 and its strong potential as both a self-purchase and gift item," said Peter Brams.



SILVER VITAL TO INDUSTRY OF TODAY AND TOMORROW

Since the beginning of the Age of Electricity, silver has been the contact material of choice. According to a speech given at the recent Annual Meeting of The Silver Institute by Robert Gentry, Technical Service Manager, **Engelhard Corp.**, the five most important reasons for silver being industry's electrical contact material of choice are: (1) Silver has the highest electrical con-

ductivity of all metals; (2) Its thermal conducting properties are similar to its electrical conducting properties; (3) Silver has long-term chemical stability; (4) It is highly resistant to mechanical wear; and (5) Its use as a contact material is cost effective.

The success of silver as the contact material of choice can be seen everywhere. Mr. Gentry stated that the long term performance of virtually all electrical appliances depends upon silver contacts which are critical to optimum performance regardless of the environment in which they may function.

Similarly, the reliable operation of automobiles is completely dependent upon as many as 45 silver contacts to deliver power when needed from the starting switch to every electrical accessory in the car. Silver contacts, said Mr. Gentry, can be expected to meet every requirement for electrical products in the foreseeable future.

Another speaker, Dr. Sungho Jin, research scientist, **AT&T Bell Laboratories**, Murray Hill, NJ, and holder of a patent for the technique of encapsulating high-temperature superconducting oxides in silver, assured members of The Silver Institute that research aimed at the manufacture of high-temperature superconductors is accelerating and that in about 10 years there will be a \$12 billion market for superconductors. **He estimated that the superconductor market could use 29 million ounces of silver annually.** Superconductors conduct electricity a *trillion* times more effectively than copper conductors.

Research and development expenditures for high-temperature superconductors by government and industry in the USA, amounted to about \$300 million in 1989. In Japan, R&D was between \$200 and \$400 million, with the rest of the world investing between \$50 and \$200 million. These expenditures are remarkably high for a technology still in its formative stages.

Regarding silver's role in the development of superconductors, Dr. Jin stated that **silver is the only cost-effective material that will not degrade superconductive materials** and, as such, it will play a critical, multiple role in their successful manufacture and application. He added, "It's hard to see how a high-temperature superconductor could be used without silver."

Potential uses for high-temperature superconductors include powerful, silver-using superconductive batteries that could last a thousand years and be used to power automobiles, airplanes and powerpacks that would operate quietly without pollution.

Electric power generated from both traditional and nuclear sources would be distributed to customers without the losses that normally accompany today's power-line transmission.

And since superconducting magnets are vastly more powerful than regular magnets, they could be used to levitate trains operating at speeds nearly half that of jet planes. Superconductors may also be used to produce diagnostic imaging devices that will provide superior soft tissue and bone detail images while using very low power — providing doctors with more information and minimizing energy radiated into the patient.

CANADA ISSUES 25TH SILVER COMMEMORATIVE DOLLAR



In 1935, the Royal Canadian Mint celebrated the Silver Jubilee of King George V by issuing a silver dollar. Since then, silver dollars have commemorated the 100th anniversary of Canada's gold rush, the 100th anniversary of the Royal Canadian Mounted Police and 23 other historic occasions, including this year's silver coin (seen at left) which celebrates the 300th anniversary of **Henry Kelsey's exploration of the Canadian Prairies.** This

coin's reverse depicts a group of Western Canadians and Kelsey overlooking a vast herd of buffalo, which claimed to be the first sighting of buffalo documented by a white man. The other side bears a contemporary portrait of Queen Elizabeth wearing a necklace and an elaborate crown — the diadem. The weight of this Canadian commemorative silver dollar is 23.33 grams (50% silver and 50% copper) and its diameter is 36.07mm. Mintage will be limited to orders received before December 15, 1990. The Mint issue price of this silver commemorative dollar in Proof condition is \$19.50 and \$14.60 for a brilliant uncirculated coin. **Orders should be addressed to: The Royal Canadian Mint, Box 457, Station A, Ottawa, Ontario K1N 9H3 or call 1-800-267-1871.**

IDAHO CENTENNIAL SILVER DESIGN COMPETITION WINNERS ANNOUNCED

The final judging of the sterling designs for the Nationwide Student Design Competition, and the Silver Design Fellowship Awards, open only to professional silversmiths residing in Idaho, was held at the Waldorf Astoria Hotel in New York City on May 25th. Both competitions are highlights in the celebration of the State of Idaho Centennial Year, reflecting Idaho's heritage and importance in the silver mining industry.

Both the student competition and the Fellowship awards were sponsored by ASARCO, Inc., Coeur d'Alene Mines, Hecla Mining Co., The Idaho Commission on Art, The Idaho Centennial Commission, Silver Trust International and Sunshine Mining Company.

The primary purpose of the student competition was to stimulate interest in sterling silver and its design among student designers and craftsmen at colleges, and technical or graduate schools in the United States. The sponsors hoped that the competition would provide challenging opportunities for students to express themselves through the medium. They were successful because 81 students from 30 schools and universities submitted entries including holloware, flatware, jewelry and sculpture.

In addition to the nationwide student competition, the Idaho Centennial Commission offered three fellowships for professional Idaho artists. Eleven Idaho artists competed with 66 entries for these awards.

A distinguished panel of judges, selected by Mr. Edward Wawrynek, Vice President of **Tiffany & Co.**, included: Ulysses G. Dietz, Curator of Decorative Arts, **Newark Museums**; Robert Mehlman, Instructor, **NY University** Graduate School; and distinguished columnist on silver, Eric Shrubsole of **S.J. Shrubsole** New York and London, world renowned dealers in antique silver; and Jeanne V. Sloane, Vice President and silver specialist at **Christie's** in New York.

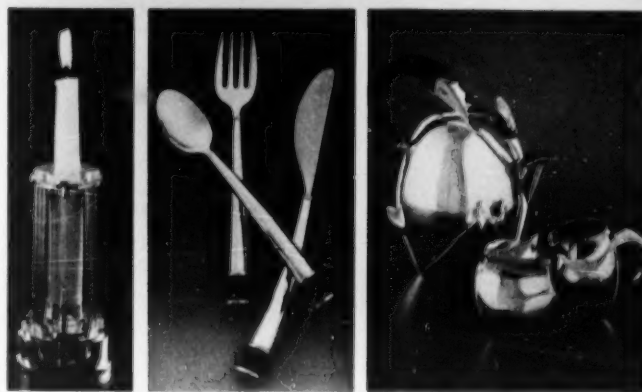
The first prize including \$750 was won by student, **Beverly Auerbach** of Georgia State University; the special flatware prize and \$750 went to **Wade Callendar**, University of Houston, while the second prize and \$600 and the third prize and \$450 went to **Katherine Merten**, San Diego State University and **Julia Woodman**, Georgia State University respectively.

A special exhibit of the winning pieces was unveiled by Governor Cecil B. Andrus in Coeur d'Alene, Idaho on June 21st during the Idaho Centennial Celebration banquet.

REDUCED WORLDWIDE SILVER PRODUCTION

Lower silver prices have fueled worldwide demand for silver and at the same time have depressed production in the United States, Mexico and other Market Economy nations.

In 1989, global industrial demand for silver increased to a record 493.5 million troy ounces, up from 476.2 million ounces in 1988, while U.S. and Mexican silver mines reduced their production by 4%, from 117.8 million ounces in 1988 to 112.8 million in 1989. Future expansion plans have also been reduced, postponed or cancelled at many mining companies.



Left, Beverly Auerbach's sterling candlestick won 1st prize. Center, this sterling 3-piece flatware with lapis won the Special Flatware Award for W. L. Callendar. Right, third prize was won by Julia R. Woodman's 3-piece sterling silver tea set.



Attending the judging at the Waldorf Astoria in New York City are seated left to right: Eric Shrubsole, judge; world-renowned dealer in American and English antiques; Jeanne V. Sloane, judge, Vice President, Silver, at Christie's, NYC. Standing left to right are: Ulysses Dietz, judge, Curator of Decorative Arts, Newark Museum; and sponsors, Tim Olson, Vice President Coeur d'Alene Mines Corp., Dennis Wheeler, President and CEO, Coeur d'Alene Mines; Jacque Crist, Idaho Commission of the Arts; judge, Robert Mehlman, noted columnist on silver and Instructor of Decorative Arts at NYU; and sponsor, Justin Rice, Chairman of Coeur d'Alene Mines.

Looking at the world's silver mine production, in 1989, it dropped to 441.2 million ounces from 1988's 442.6 million ounces according to the authoritative annual **Mine Production of Silver 1989 - 1993** report, issued recently by The Silver Institute.

The 52.3 million ounce shortfall between demand and mine production was met by purchases of old (secondary) silver and silver from centrally planned economies.

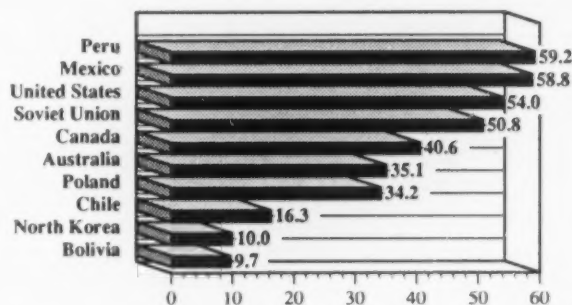
At the right, a table shows the top ten silver-producing countries in 1989.

The ranking of the nations has changed since 1988 when Mexico ranked first by producing 63.3 million ounces of silver, followed by the United States with 54.5 million ounces.

This Silver Institute report is prepared with the participation of 164 mining entities in the 56 silver producing countries. They provide the Institute with data on their actual and projected mine production of silver.

This valuable 11-page report may be obtained for only US\$(28) from The Silver Institute.

1989—Millions of Troy Ounces of Silver

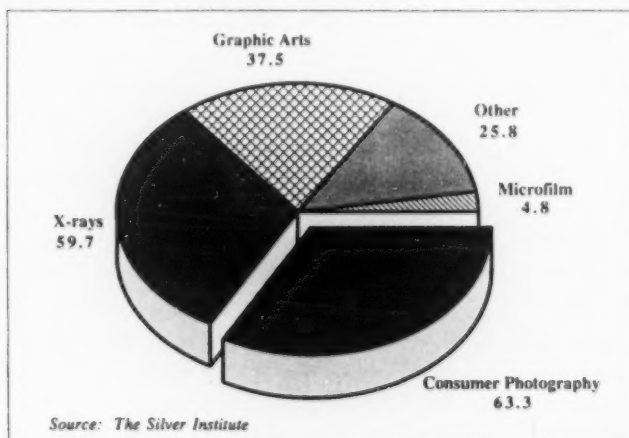


Source: The Silver Institute

PHOTOGRAPHY WILL USE 20% MORE SILVER BY 1995 — CONSUMER PHOTOGRAPHY IS BIGGEST PHOTOGRAPHIC USER OF SILVER

According to Peter Krause, Vice President, Imaging Technology/Markets Inc., global consumption of silver in photography will leap from 191 million ounces in 1989 to 230 million ounces in 1995. This increase will be driven by continuing strong demand for silver's use in consumer photography and for x-ray films. The photographic industry is the largest single user of silver, accounting for 41% of total demand.

The following chart shows worldwide silver usage by photographic application use in 1989 in millions of troy ounces.



Source: The Silver Institute

FOR FUTURE REFERENCE: SILVER PRICES

1990	High	Low	Average
May	5.28	4.94	5.08
Apr.	5.18	4.86	5.05
Mar.	5.16	4.89	5.06
Feb.	5.35	5.05	5.27
Jan.	5.27	5.12	5.24

Annual Silver Prices 1980-1989

Year	High	Low	Avg.
1989	6.20	5.02	5.47
1988	8.06	6.01	6.53
1987	11.25	5.35	6.99
1986	6.32	4.85	5.49
1985	6.89	5.48	6.14
1984	10.17	6.25	8.15
1983	14.74	8.38	11.46
1982	11.30	4.81	7.93
1981	16.53	7.97	10.53
1980	50.35	10.20	20.66

THE SILVER INSTITUTE

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INCORPORATED 1971

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Editor: David U. Groves

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LATEST SILVER INSTITUTE REFINING STATISTICS

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THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	3,071,451	4,004,109	3.7	4.4	4.2
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,384,288	2,230,279	2.4	3.3	2.7
From New Scrap (in-plant clippings, waste)*	1,649,873	1,605,043	1.8	2.0	2.5
TOTAL PRODUCTION	7,105,612	7,839,431	8.0	9.8	9.3
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,701,237	3,217,475	3.3	4.2	4.3
Shipped Out as 999 Silver	4,496,778	4,195,789	4.3	5.3	5.0
TOTAL DISPOSITION	7,198,015	7,413,264	7.7	9.6	9.4
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-92,403	426,167	0.8	0.6	-0.2
THESE REFINERS' STOCKS AT END OF PERIOD	1,104,685	1,197,088	1.1	1.1	0.3

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	MARCH 1990	FEBRUARY 1990	Jan-Mar 1990	Jan-Mar 1989	Full Year 1989
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	14,704,325	14,067,277	14.5	13.6	13.8
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,755,343	3,500,805	3.4	4.4	4.1
From New Scrap (in-plant clippings, waste)*	869,536	749,993	0.9	2.2	1.5
TOTAL PRODUCTION	19,329,204	18,318,075	18.9	20.2	19.5
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,116,798	2,003,567	2.1	2.8	2.3
Shipped Out as 999 Silver	15,665,959	16,186,684	15.9	16.6	16.8
TOTAL DISPOSITION	17,782,757	18,190,251	18.1	19.4	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	1,546,447	127,824	2.4	2.4	3.5
THESE REFINERS' STOCKS AT END OF PERIOD	13,507,130	11,960,683	13.5	9.9	11.1

*PRODUCTION From New Scrap is 999 silver made from in-plant clippings, spillage, sweepings, etc., generated during manufacturing processes.

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	TROY OUNCES		MILLION TROY OUNCES		
	APRIL 1990	MARCH 1990	Jan-Apr 1990	Jan-Apr 1989	Full Year 1989
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	4,144,255	3,071,451	3.8	4.3	4.2
From Coins	73,550 **	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	2,819,333 **	2,384,288	2.5	3.3	2.7
From New Scrap (in-plant clippings, waste)*	1,688,317 **	1,649,873	1.8	2.1	2.5
TOTAL PRODUCTION	8,725,455 **	7,105,612	8.1	9.8	9.3
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	3,885,921	2,701,237	3.5	4.4	4.3
Shipped Out as 999 Silver	4,905,281 **	4,496,778	4.5	5.2	5.0
TOTAL DISPOSITION	8,791,202 **	7,198,015	7.9	9.6	9.4
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-65,747	-92,403	0.7	0.5	-0.2
THESE REFINERS' STOCKS AT END OF PERIOD	1,038,938	1,104,685	1.0	1.0	0.3

Production and Disposition of 999 Silver by All Known Refiners in Australia, Canada, Mexico, Peru, South Africa, Sweden, and West Germany; and some other Refiners in Europe and Asia.

	TROY OUNCES		MILLION TROY OUNCES		
	APRIL 1990	MARCH 1990	Jan-Apr 1990	Jan-Apr 1989	Full Year 1989
THESE REFINERS' PRODUCTION, BY SOURCE				MONTHLY RATE	
From Primary (ores & concentrates)	13,344,342	14,704,325	14.2	13.7	13.8
From Coins	0	0	0.0	0.0	0.0
From Old Scrap (used photo film & other products)	3,627,164	3,755,343	3.5	4.3	4.1
From New Scrap (in-plant clippings, waste)*	888,630	869,536	0.9	1.9	1.5
TOTAL PRODUCTION	17,860,136	19,329,204	18.6	19.9	19.3
DISPOSITION BY THESE REFINERS					
Converted in Plant (consumed in fabricating, etc.)	2,195,748	2,116,798	2.1	2.6	2.3
Shipped Out as 999 Silver	16,956,178	15,665,959	16.2	16.6	16.8
TOTAL DISPOSITION	19,151,926	17,782,757	18.3	19.2	19.2
RESULTING CHANGE OF THESE REFINERS' STOCKS (Production Minus Disposition)	-1,291,790	1,546,447	1.1	3.0	3.5
THESE REFINERS' STOCKS AT END OF PERIOD	12,215,340	13,507,130	12.2	10.6	11.1

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**REVISED 7/17/90 to include new company first reporting in April.

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THE SILVER INSTITUTE LETTER

WORLDWIDE INFORMATION ON SILVER

PUBLISHED SINCE 1971

AUGUST - SEPTEMBER 1990

MEXICAN SILVER MINERS INVEST IN MEXICO'S FUTURE

by Michael J. Brown

In recognition of the importance of expanding demand for silver through value added products, prominent Mexican silver miners have organized a unique apprentice school to train a new generation of silver craftsmen and craftswomen. The school, *Centro Platero de Zacatecas*, is now in its second year and is located in Mexico's historic mining region in the state of Zacatecas.

The *Centro Platero* produces high quality 925 sterling silver jewelry. The Marketing Director of **Silver Trust International**, Katherine Wolf, noted, "The jewelry designs are inspired by the cultural influences and architecture of Zacatecas. Many of the pieces include patterns taken from wrought iron work as well as architectural decorations."

The *Centro Platero* was established by leading Mexican silver companies in cooperation with the state and federal government with the objective of reviving activity in silver, creating new jobs, increasing awareness of the beauty and value of Mexican silver products and to promote tourism for the beautiful state of Zacatecas.

A magnificent 300-year old building of the Spanish Colonial era was completely remodeled to provide the *Centro Platero* with spacious classrooms, laboratories, training rooms and workshops. Within the next ten years, plans call for the establishment of two hundred silver workshops, employing 1,000 silversmiths and apprentice, which will be located on the six acres surrounding the *Centro Platero*.

To be considered for entry in the *Centro Platero's* one-year Apprentice Program, potential students must not only demonstrate artistic aptitude, but must also understand the principles of business and promotion. The Centro's goal is to provide the students with the training needed to enable graduates to support themselves by producing silver jewelry. To achieve this objective, students are taught principles of design, silver fabrication and the other fundamentals of silver craftsmanship. A second-year program teaches the fabrication of larger silver ornaments. The age of the current student body ranges from 14 to 45 years of age.

Following successful completion of the training program, the Centro furnishes each graduate with the necessary equipment, employment referrals and project contracts needed to help them start a successful business.

The *Centro Platero* is funded through contributions by leading silver fabricators and miners of Mexico, including Tane, Case de Bolsa Probursa, Industrias Penoles, Grupa Guisa, Minera de



The Silver Institute Executive Committee at the front entrance to the Centro Platero de Zacatecas.



Jorge Ordonñez and Javier Altamirano observe a student preparing silver jewelry.



Genaro Borrego Estrada, Governor of Zacatecas, host a dinner for The Silver Institute. Also pictured are Art Brown, President of The Silver Institute and Alfredo Elias Ayub, Deputy Minister of Mines of Mexico.

Angeles and the Zacatecas state government. These organizations also provide the Centro with physical equipment and lend their expertise to the program.

Looking to the future, Silver Trust International and Mexican industry and government leaders are now evaluating how to best enhance the production of Mexican silver products of competitive price and quality for export to Japan, Europe and the United States.



WORLD'S FIRST PURE SILVER LIFESIZE STATUE OF A HUMAN FIGURE

The world's finest figurative lifesize .999 silver casting was recently unveiled at Art Expo New York by sculptor Richard Hallier of Boone, North Carolina. The seven-foot-six-inch casting, titled "Celebration of Life," *pictured at left*, contains 2,781 troy ounces of silver and is valued at \$140,000.

Cast by The Maiden Foundry, 16600 S.E. 362nd, Sandy, Oregon 97055, "Celebration of Life" depicts a modern, clothed female dancer. "In my mind, it was not only a modern dancer but an active and hard working 20th century woman," explained Hallier.

Originally commissioned by a Charlotte, North Carolina couple, the sculpture is now for sale. It is being considered as an "entry statement" for a building in new York City.

Maiden Foundry spokesperson, Steven M. Wolf, said that in order to satisfy the demand for artistic pure silver statues, the Maiden Foundry poured over 250,000 troy ounces of silver in 1989. For additional information contact Mr. Wolf at the Maiden Foundry at the above address or by calling (503) 668-8097.

STERLING SILVER PRODUCTS POPULAR IN CANADA

It's happening across Canada, in the dining rooms, restaurants and the kitchens. People are bringing their silver out of the drawers and cupboards for everyday use. They're using it for family suppers — and even picnics — as well as for formal gatherings. The popularity of silver is indeed growing as prices become stable and consumer tastes move towards high quality, lasting products, according to **The Silversmiths Guild to Canada**, 20 Eglinton Avenue West, Suite 1203, Toronto, Ontario M4R 1K8 Canada.

The Guild has noted distinct buying trends for silver in the 80's and in 1990. The bridal market is as strong as ever. At Henry Birks and Sons Ltd., which specializes in sterling and silver plated goods, flatware is a very popular gift with Canadian brides, especially sterling handled serving accessories. Guild members have found consumer tastes moving towards more traditional patterns that are elegant without being too ornate or old fashioned.

With a growing selection of smaller sterling silver items on the market, Canadian consumers are finding silver the perfect gift for almost every occasion. And for the arrival of new babies, fine stores are featuring baby cups, mugs, porringers, rattles and teethingers, many of which can be engraved for a more personal touch.

For general gift giving, Canadians are buying sterling picture frames, vanity accessories, candlesticks and napkin rings because they "represent an unbeatable combination of quality and value." And, adds the Silversmiths Guild, there is no doubt that a unique gift in sterling silver makes a very strong personal statement.

Charles Laidly of Canada's Heritage Silversmiths, sums up the renewed interest of consumers in sterling silver this way, "people want a gift that brings good value and lasts forever, and these days people seem more interested in formal dining than they were ten years ago." What better choice is there than silver to meet these needs.

**REVISED

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SALES OF SILVER BULLION COINS INCREASE 48% IN 1989

In spite of an uninspired market for silver in 1989, the continuing demand for physical silver in the form of legal tender bullion coins resulted in a 48% increase in sales of the American Eagle, Canadian Maple Leaf and Mexican *Onza* or *Libertad* silver bullion coins. Sales reached 11.7 million troy ounces in 1989, compared with 7.9 million ounces in 1988, according to the authoritative *Modern Silver Coinage 1989* report, recently issued by The Silver Institute.

The largest single consumer of silver for coinage was the one ounce American Eagle bullion coin which used 6.8 million ounces of silver in 1989. This was followed by the one ounce silver Canadian Maple Leaf bullion coin at 3.4 million ounces. The third largest consumer of silver, among bullion coins, was the Mexican *Onza* or *Libertad* which used 1.6 million ounces.

Throughout the world, 26.3 million ounces of silver were used in 1989 (up from 25.7 in 1988) to produce the 317 silver coinages minted by 66 countries, the report states. Of the total worldwide use of silver for coinage, over half, or 14.5 million ounces of silver were used in the minting of silver commemoratives for collectors of modern silver coins.

The top ten users of pure silver in coinage in 1989, in millions of troy ounces were: Federal Republic of Germany (7.8 million ounces); United States (7.4); Canada (3.6); France (2.6); Mexico (1.6); Australia (.5); China (.5); Austria (.4); Spain (.2); and the Isle of Man (.2).



The most popular commemorative coins were minted by the Federal Republic of Germany, continued *Modern Silver Coinage 1989*. It used 7.8 million ounces of silver to mint three different coinages, one of which is sure to become a collector's item. This handsome silver coin, shown at left, is both historic and prophetic in that it depicts the coats of arms of the 11 states of West Germany and the dates 1949 and 1989. At the speed of the drive for reunification, next year's coin will also have to include the coats of arms of East Germany's states. Some 2.6 million ounces of silver were used to strike 8,350,000 coins celebrating the 40th Anniversary of the Federal Republic of Germany. The same amount of silver was used to mint the same number of two other commemorative coins — one marking the 800th Anniversary of the city of Hamburg and the other, celebrating the 2,000th Birthday of Bonn!

Other popular themes which were depicted on commemorative coins include: the World Soccer Cup, the 1992 Olympic Games and the 500th Anniversary of the Discovery of the "New World" by Christopher Columbus.

Modern Silver Coinage 1989 makes it easy for the reader to identify each coin by providing a brief physical description of each — including its diameter and weight. In addition, this report gives otherwise unavailable information on both the percent of pure silver and the silver weight in troy ounces in each coin as well as the total number of coins minted and the total number of troy ounces of silver used in each coinage. This publication may be purchased from The Silver Institute for US\$33.

MINILABS EXTEND THE GLOBAL MARKET FOR COLOR FILM

by Sam Etris, Senior Technical Consultant, The Silver Institute

Silver used for photography reached a record high of 191 million ounces in 1989 and, with minilabs making color photography accessible to amateur photographers on a worldwide basis, best industry estimates indicate that over 230 million ounces of silver will be used by the world's photographic industry by 1995.

Minilabs are small, very efficient, automated units which are easy to set up and operate. The first minilab was produced about ten years ago by Gretag Ltd., Switzerland. Last year, sales had grown to 3,000 units which were produced by Noritsu of Japan (the largest producer), Copla, Fuji and Konica (Japan), Agfa (Germany), Gretag and Kodak. Photography industry expert, Peter Krause of Technology/Markets, Inc., Naples, Florida, estimates that 17,000 minilabs are now in operation in the U.S.A., with some 50,000 to 60,000 operating worldwide. "With minilabs it is possible to start small with a relatively small investment," Mr. Krause said, "Then, as volume increases, you just add more minilabs. In the long run, minilabs promote the use of film, particularly in areas where the local volumes would not justify large professional photographic laboratories." He

estimates that there may be as many as 2,500 minilabs in China, 1,200 in India and a ready-market for minilabs in formerly communist-controlled countries which have, until now, totally de-emphasized photography.

For example, the *New York Times* recently reported that a former Hungarian rock musician, who had earlier visited the U.S. to pick up business ideas, invested \$200,000 in 1985 to start Eastern Europe's first one-hour photo minilab in Budapest. The business was an instant hit in a country where developing color film normally took about a month. He netted \$200,000 the first year. Today, the *Times* reported, his company, FOTEX, Ltd., operates mini-labs in seven photo shops. And, thanks to him, sales of Kodak film in Hungary jumped from 30,000 roles in 1987 to more than a million in 1989.

The advent of the minilab is timely. The public's growing use of color film is evidenced by the 1989 sales of 20 million disposable cameras in Japan alone. Both Fuji and Konica now offer three models each and Kodak manufactures three "Fling" models in the U.S.A. This rapidly escalating segment of the camera market is quickly becoming very big business.

The combination of simple disposable cameras that are more readily available, easy to use, inexpensive to manufacture and take good, inexpensive color photo-

graphs along with thousands of minilabs that make color picture development accessible to the world's amateur photographers, it is little wonder that the experts predict an ever-expanding use of silver halide film.



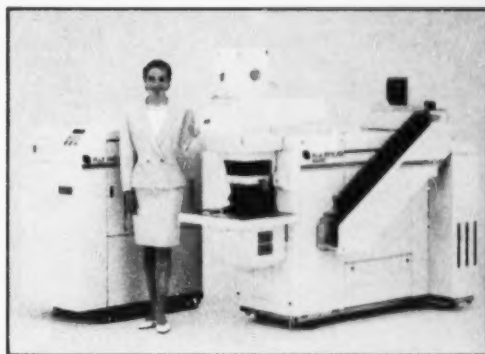
Waterproof, disposable weekend camera.

KOOKABURRA SILVER COIN SELLS OUT BEFORE ISSUE



GoldCorp of Australia announced recently that initial international demand from banks, bullion houses and coin dealers for Australia's first legal tender silver bullion coin, depicting one of Australia's most popular birds, the Kookaburra, (at left) was more than five times the number

of coins being produced. Several weeks prior to its release GoldCorp received requests totaling more than 1.5 million coins — however, only 300,000 were authorized and minted. For more information about the Kookaburra, please contact: **GoldCorp Australia, 1119 Colorado Avenue, Suite #104, Santa Monica, CA 90401, Tel. (213) 394-5339.**



FOR FUTURE REFERENCE: SILVER PRICES

1990	High	Low	Average
July	4.98	4.77	4.85
June	5.09	4.74	4.90
May	5.28	4.94	5.08
Apr.	5.18	4.86	5.05
Mar.	5.16	4.89	5.06
Feb.	5.35	5.05	5.27
Jan.	5.27	5.12	5.24

Annual Silver Prices 1980-1989

Year	High	Low	Avg.
1989	6.20	5.02	5.47
1988	8.06	6.01	6.53
1987	11.25	5.35	6.99
1986	6.32	4.85	5.49
1985	6.89	5.48	6.14
1984	10.17	6.25	8.15
1983	14.74	8.38	11.46
1982	11.30	4.81	7.93
1981	16.53	7.97	10.53
1980	50.35	10.20	20.66

THE SILVER INSTITUTE

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